Amendments to the Claims

1 (currently amended). A radiation detection device comprising a CsBr crystal as a scintillator and a photoelectron multiplier tube for receiving a light from the scintillator, wherein the photoelectron multiplier tube detects a light of a wavelength of from 300 to 500 nm, and has a sensitivity permitting the detection of a single-photon, a half bandwidth of 30 ps or less relative to the single-photon and a light-receiving area of 10 mm² or more.

2 (original). The radiation detection device of claim 1, which is <u>adapted</u> for detecting gamma rays.

3 (currently amended). The radiation detection device of claim 1 or 2 wherein the CsBr crystal has a CsCl type crystal structure and the Cs:Br atom ratio is about 1:1.

4 (currently amended). The radiation detection device of claim 1 any one of claims 1 to 3 wherein the photoelectron multiplier tube detects a light of a wavelength of from 200 to 500 nm, and the scintillator has an attenuation time of 50 ps or less.

5 (currently amended). The radiation detection device of claim 1 any one of claims 1 to 4 wherein the photoelectron multiplier tube is a MCP built-in photoelectron multiplier tube.

- 6 (new). The radiation detection device of claim 2 wherein the CsBr crystal has a CsCl type crystal structure and the Cs:Br atom ratio is about 1:1.
- 7 (new). The radiation detection device of claim 2 wherein the photoelectron multiplier tube detects a light of a wavelength of from 200 to 500 nm, and the scintillator has an attenuation time of 50 ps or less.
- 8 (new). The radiation detection device of claim 3 wherein the photoelectron multiplier tube detects a light of a wavelength of from 200 to 500 nm, and the scintillator has an attenuation time of 50 ps or less.

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9 (new). The radiation detection device of claim 2 wherein the photoelectron multiplier tube is a MCP built-in photoelectron multiplier tube.

10 (new). The radiation detection device of claim 3 wherein the photoelectron multiplier tube is a MCP built-in photoelectron multiplier tube.

11 (new). The radiation detection device of claim 4 wherein the photoelectron multiplier tube is a MCP built-in photoelectron multiplier tube.

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